

40097**Weld large or complex items for an advanced textiles project**

Kaupae Level	4
Whiwhinga Credit	9
Whāinga Purpose	<p>This skill standard is intended for people who want to apply welding techniques to the fabrication of large or complex items for an advanced textile project.</p> <p>This skill standard can be used in programmes leading to the New Zealand Certificate in Advanced Textiles (Level 4) with strands in Industrial Textiles Fabrication, and Industrial Trimming [Ref: 5060].</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Determine settings for welding machines required to complete a large or complex advanced textiles project.	a. Determine the settings required for a welding machine in terms of the project requirements.
	b. Determine optimum weld settings for a material, taking into account heat, dwell time and pressure.
	c. Test welding machine settings and monitor them throughout the job.
	d. Confirm welding machines are functioning correctly and properly maintained.
2. Weld large and or complex items for an advanced textiles project.	a. Set up the welding machine.
	b. Prepare for welding.
	c. Perform welds.
3. Test and monitor the quality of welds for an advanced textiles project.	a. Test the quality of welds.
	b. Monitor weld quality throughout the welding session and troubleshoot faults.
	c. Adjust weld settings in response to testing information.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria***Assessment specifications:***

The evidence presented for assessment against this skill standard must be consistent with safe working practices and be in accordance with applicable workplace requirements, industry guidelines, legislative requirements, and manufacturer's information.

Evidence must be provided of welding techniques for three different large and or complex fabrication projects, using a minimum of two types of welders.

Examples of projects that may be used include (but are not limited to) manufacture or repair of: tarpaulins, tents and marquees, screens and blinds, awnings, shade sails, canopy structures, tension membrane skins and textile structures.

Definitions

Complex projects – projects that have a level of complexity in their production, e.g. multiple materials to be sourced, advanced technical skills required, coordination of other agencies or contractors, multiple components or parts to the product.

Industry guidelines – those practices and procedures commonly used as standard procedures to produce items of acceptable saleable quality in the industrial textile fabrication and trimming industry such as related textbook descriptors.

Large projects – projects that have additional production requirements due to their size or volume, e.g. high quantity of material, high labour needs, large production area.

Manufacturer's information – technical information for a machine or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Material(s) – fabric, fittings and any other components used in the manufacture of industrial textile fabrication and trimming projects.

Welding techniques – the ability to use at least two types of welding machine and to complete large and/or complex welding tasks for example: High frequency (HF) – free welding, welding curves with hot air travelling welder, working with mixed materials and/or multiple layers.

Workplace requirements – instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

- Welding tasks such as waterproofing and seam sealing, welding curves and shapes and different accessories or product types together; for example: Keder, webbing, zips.
- Welding machines such as auto wedge welder, auto hot-air welder, High Frequency (HF) welder, rotary Ultra Sonic (US) welder.
- Monitoring welding to adjust for changes such as a change in ambient temperature.
- Weld quality tests such as peel, shear, pressure, tensile strength, water, air test.
- Common welding faults such as lack of penetration, distortion, oozing, beading blow, delamination, tape alignment, surface flash, consistency of welded joint.

Rauemi | Resources

Legislation, regulations and/or industry standards relevant to this skill standard include but are not limited to:

- Health and Safety at Work Act 2015.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard.

Legislation can be accessed at: <https://www.legislation.govt.nz>.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Manufacturing > Industrial Textile Fabrication > Industrial Textile Fabrication and Trimming
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0014

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	29 August 2024	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council at qualifications@hangaarorau.nz if you wish to suggest changes to this skill standard.